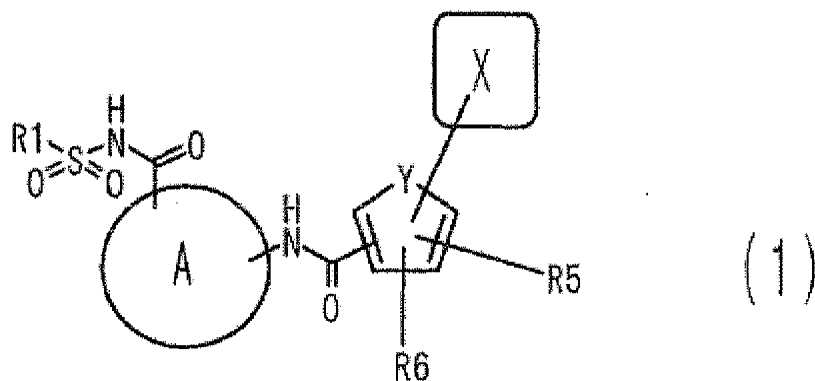


TRANSLATION OF CLAIMS ONLY

Scope of Claims

1. N-alkylsulphonyl-substituted amide derivatives represented by the following general formula (1), and pharmaceutically permitted salts thereof,



[where, in the formula, R1

is a substituted or unsubstituted C1 to C20 {sic}ⁱ alkyl group, substituted or unsubstituted C2 to 20 alkenyl group, substituted or unsubstituted C2 to C20 alkynyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted heteroaromatic group, substituted amino group, substituted or unsubstituted C1 to C20 alkoxy group, substituted or unsubstituted C2 to C20 alkenyloxy group, substituted or unsubstituted C2 to C20 alkynyloxy group or a group denoted by R2-O- (where R2 is a substituted or unsubstituted aromatic hydrocarbon

group or substituted or unsubstituted heteroaromatic group), or

R1-SO2- is replaced by a substituted or unsubstituted heterocyclic group,

Y is a group represented by -CR³=CR⁴-, -CO-NR³-, -NR³-CO-, -N=CR³- or -CR³=N-, or a sulphur atom or an oxygen atom, and

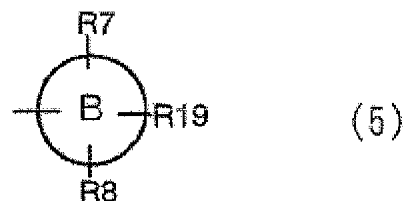
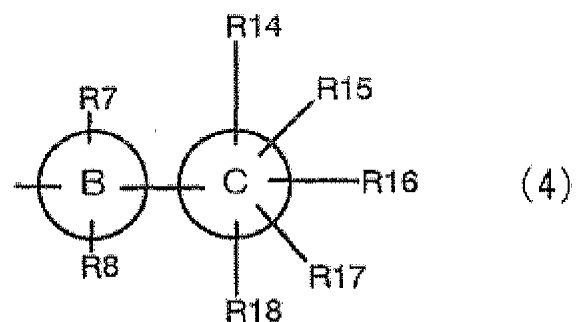
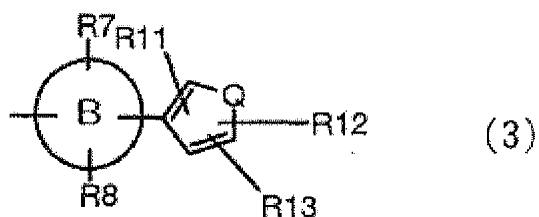
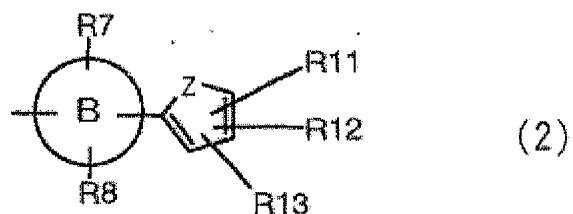
in general formula (1), R1, R2, R3, R4, R5 and R6 may each be the same or different, and

R3, R4, R5 and R6 are

each a substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted C1 to C12 alkyl group, substituted or unsubstituted C2 to C12 alkenyl group, substituted or unsubstituted C2 to C12 alkynyl group, substituted or unsubstituted C1 to C12 alkoxy group, hydrogen atom, hydroxy group, mercapto group, substituted or unsubstituted C1 to C12 substituted-amino group, substituted or unsubstituted C1 to C6 alkylthio group, nitro group, halogen atom or cyano group,

the A moiety is a substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted heteroaromatic group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted cycloalkenyl group, substituted or unsubstituted non-aromatic heterocyclic group or an alkylene group with a cyclic substituent groupⁱⁱ,

X denotes general formulae (2), (3), (4), (5) or R20,



where, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18 and R19 in general formulae (2), (3), (4) and (5) are the same or different, and are each a substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted C1 to C12 alkyl group, substituted or unsubstituted C2 to C12 alkenyl group, substituted or unsubstituted C2 to C12 alkynyl group, substituted or

unsubstituted C₁ to C₁₂ alkoxy group, hydrogen atom, hydroxy group, mercapto group, substituted or unsubstituted C₁ to C₁₂ substituted-amino group, substituted or unsubstituted C₁ to C₆ alkylthio group, nitro group, halogen atom or cyano group,

Z is a group represented by -CR⁹=CR¹⁰-, -N=CR⁹- or -CR⁹=N-, or a sulphur atom or oxygen atom,

Q is a group represented by -CR⁹=N-, or a sulphur atom or oxygen atom,

ring B

includes ⁱⁱⁱ a substituted or unsubstituted aromatic hydrocarbon group, a substituted or unsubstituted 4- to 9-membered heterocycle, an unsubstituted or substituted cycloalkyl group, or an unsubstituted or substituted cycloalkenyl group,

ring C

is a substituted or unsubstituted heteroaromatic ring other than a pyridine ring, furan ring or thiophene ring, a substituted or unsubstituted cycloalkyl group, or a substituted or unsubstituted cycloalkenyl group,

R²⁰ is a substituted or unsubstituted C₁ to C₁₂ alkyl group, substituted or unsubstituted C₂ to C₁₂ alkenyl group, substituted or unsubstituted C₂ to C₁₂ alkynyl group, substituted or unsubstituted C₁ to C₁₂ alkoxy group, hydrogen atom, hydroxy group, mercapto group, substituted

or unsubstituted C1 to C12 substituted-amino group, substituted or unsubstituted C1 to C6 alkylthio group, nitro group, halogen atom or cyano group, and

R7 and R8 can also form a cyclic structure by covalent bonding with R3, R4, R5, R6 in general formula (1) or R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19 in general formulae (2), (3), (4), (5).]

2. N-alkylsulphonyl-substituted amide derivatives according to Claim 1, or pharmaceutically permitted salts thereof, where

in formula (1),

R1 is a substituted or unsubstituted C1 to C20 alkyl group, substituted or unsubstituted C2 to C20 alkenyl group, substituted or unsubstituted C2 to C20 alkynyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted heteroaromatic group, substituted amino group, substituted or unsubstituted C1 to C20 alkoxy group, substituted or unsubstituted C2 to C20 alkenyloxy group, substituted or unsubstituted C2 to C20 alkynyloxy group or a group denoted by R2-O- (where R2 is a substituted or unsubstituted aromatic hydrocarbon group or substituted or unsubstituted heteroaromatic group),

Y is a group represented by -CR³=CR⁴-, -N=CR³- or -CR³=N-, or a sulphur atom or oxygen atom, and

the A moiety is a substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted hetero-aromatic group, substituted or unsubstituted cycloalkyl group, or substituted or unsubstituted cycloalkenyl group.

3. N-alkylsulphonyl-substituted amide derivatives according to Claim 1 or Claim 2, or pharmaceutically permitted salts thereof, where the A moiety is an aromatic hydrocarbon group with substitution positions at the 1,2- or 1,3- positions, a heteroaromatic group with substitution positions at the 1,2- or 1,3- positions, a cycloalkenyl group with substitution positions at the 1,2- or 1,3- positions, or a substituted or unsubstituted non-cyclic α,β -amino acid moiety (that part of the amino acid other than the amino group and carbonyl group), or a cycloalkyl group where the substitution positions are the 1,1- positions, 1,2- positions or 1,3- positions.

4. N-alkylsulphonyl-substituted amide derivatives according to Claim 1 or Claim 2, or pharmaceutically permitted salts thereof, where the A moiety is a substituted or unsubstituted phenyl group.

5. N-alkylsulphonyl-substituted amide derivatives according to any of Claims 2 to 4, or pharmaceutically permitted salts thereof, where X denotes any of general formulae (2), (3), (4) or (5).

6. N-alkylsulphonyl-substituted amide derivatives according to any of Claims 2 to 4, or pharmaceutically permitted salts thereof, where X denotes R20.

7. N-alkylsulphonyl-substituted amide derivatives according to Claim 6, or pharmaceutically permitted salts thereof, where X denotes R20 and this R20 is an aryl-substituted ethynyl group.

8. N-alkylsulphonyl-substituted amide derivatives according to Claim 6, or pharmaceutically permitted salts thereof, where X denotes R20 and this R20 is an ethynyl group substituted with an aryl group to which is bonded a fluorine atom or a fluorine-atom-containing substituent.

9. N-alkylsulphonyl-substituted amide derivatives according to any of Claims 2 to 4, or pharmaceutically permitted salts thereof, where X denotes general formula (2).

10. N-alkylsulphonyl-substituted amide derivatives according to Claim 4, or pharmaceutically permitted salts thereof, where X denotes general formula (2) and Z in formula (2) represents $-CR_9=CR_{10}-$.

11. N-alkylsulphonyl-substituted amide derivatives according to Claim 4, or pharmaceutically permitted salts thereof, where X denotes general formula (2), Z in formula (2) represents $-CR_9=CR_{10}-$, and Y in formula (1) is $-CR_3=CR_4-$ or a sulphur or oxygen atom.

12. N-alkylsulphonyl-substituted amide derivatives according to Claim 9, or pharmaceutically permitted salts thereof, where ring B in general formula (2) represents a substituted or unsubstituted 4- to 9-membered heterocycle.

13. N-alkylsulphonyl-substituted amide derivatives according to Claim 9, or pharmaceutically permitted salts thereof, where ring B in general formula (2) is a substituted or unsubstituted 5-membered heterocycle.

14. N-alkylsulphonyl-substituted amide derivatives according to Claim 9, or pharmaceutically permitted salts thereof, where ring B in general formula (2) represents a thiazole ring or oxadiazole ring.

15. An ACC activity inhibitor in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

16. An obesity preventive and/or remedy in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

17. A hyperlipemia preventive and/or remedy in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

18. A fatty liver (jecur adiposum) preventive and/or remedy in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

19. A blood sugar lowering agent in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

20. A preventive and/or remedy for sugar tolerance abnormality or diabetes in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

21. A preventive and/or remedy for diabetic complications in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

22. A preventive and/or remedy for high blood pressure and arteriosclerosis in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

23. A preventive and/or remedy for obesity, hyperlipemia or fatty liver in which the effective components are an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof, plus one or two drugs from the following group A.

A: insulin, sulphonyl urea agents, α -glycosidase inhibitors, biguanide agents, PPAR- γ -agonists, PPAR- γ -antagonists, PPAR- α -agonists, SGLT inhibitors, GLP-1

receptor antagonists, DPP-IV inhibitors, aldose reductase inhibitors, diabetic nerve damage remedies, HMG-CoA reductase inhibitors, antioxidants, calcium antagonists, angiotensin converting enzyme inhibitors, angiotensin II receptor antagonists, β -blockers, α 1 blockers, diuretics, anti-obesity drugs and low-energy foods

24. A preventive and/or remedy for sugar tolerance abnormality, diabetes or diabetic complications in which the effective components are an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof, plus one or two drugs from the following group A.

A: insulin, sulphonyl urea agents, α -glycosidase inhibitors, biguanide agents, PPAR- γ -agonists, PPAR- γ -antagonists, PPAR- α -agonists, SGLT inhibitors, GLP-1 receptor antagonists, DPP-IV inhibitors, aldose reductase inhibitors, diabetic nerve damage remedies, HMG-CoA reductase inhibitors, antioxidants, calcium antagonists, angiotensin converting enzyme inhibitors, angiotensin II receptor antagonists, β -blockers, α 1 blockers, diuretics, anti-obesity drugs and low-energy foods

25. A preventive and/or remedy for high blood pressure or arteriosclerosis in which the effective components are an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof, plus one or two drugs from the following group A.

A: insulin, sulphonyl urea agents, α -glycosidase inhibitors, biguanide agents, PPAR- γ -agonists, PPAR- γ -antagonists, PPAR- α -agonists, SGLT inhibitors, GLP-1 receptor antagonists, DPP-IV inhibitors, aldose reductase inhibitors, diabetic nerve damage remedies, HMG-CoA reductase inhibitors, antioxidants, calcium antagonists, angiotensin converting enzyme inhibitors, angiotensin II receptor antagonists, β -blockers, α 1 blockers, diuretics, anti-obesity drugs and low-energy foods

26. A blood sugar lowering agent in which the effective components are an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof, plus one or two drugs from the following group A.

A: insulin, sulphonyl urea agents, α -glycosidase inhibitors, biguanide agents, PPAR- γ -agonists, PPAR- γ -antagonists, PPAR- α -agonists, SGLT inhibitors, GLP-1 receptor antagonists, DPP-IV inhibitors, aldose reductase inhibitors, diabetic nerve damage remedies, HMG-CoA reductase inhibitors, antioxidants, calcium antagonists, angiotensin converting enzyme inhibitors, angiotensin II receptor antagonists, β -blockers, α 1 blockers, diuretics, anti-obesity drugs and low-energy foods

27. A drug composition in which the effective component is an N-alkylsulphonyl-substituted amide derivative according to any of Claims 1 to 14, or a pharmaceutically permitted salt thereof.

Translator's Notes

ⁱ The original Japanese text has, for the most part, not used superscripts or subscripts. Hence, the same format has been retained in the translation and no attempt is made to improve on the original.

ⁱⁱ The alkylene group here is a C1 to C12 (preferably C1 to C6) alkylene group, and examples of the cyclic substituent are cycloalkyl, cycloalkenyl, aromatic and heteroaromatic groups.

ⁱⁱⁱ The Japanese text uses the word 'includes' here but perhaps 'comprises' was actually meant. Page 14 [formula (6)] of the Japanese text gives examples of ring B.